

Sheet 2

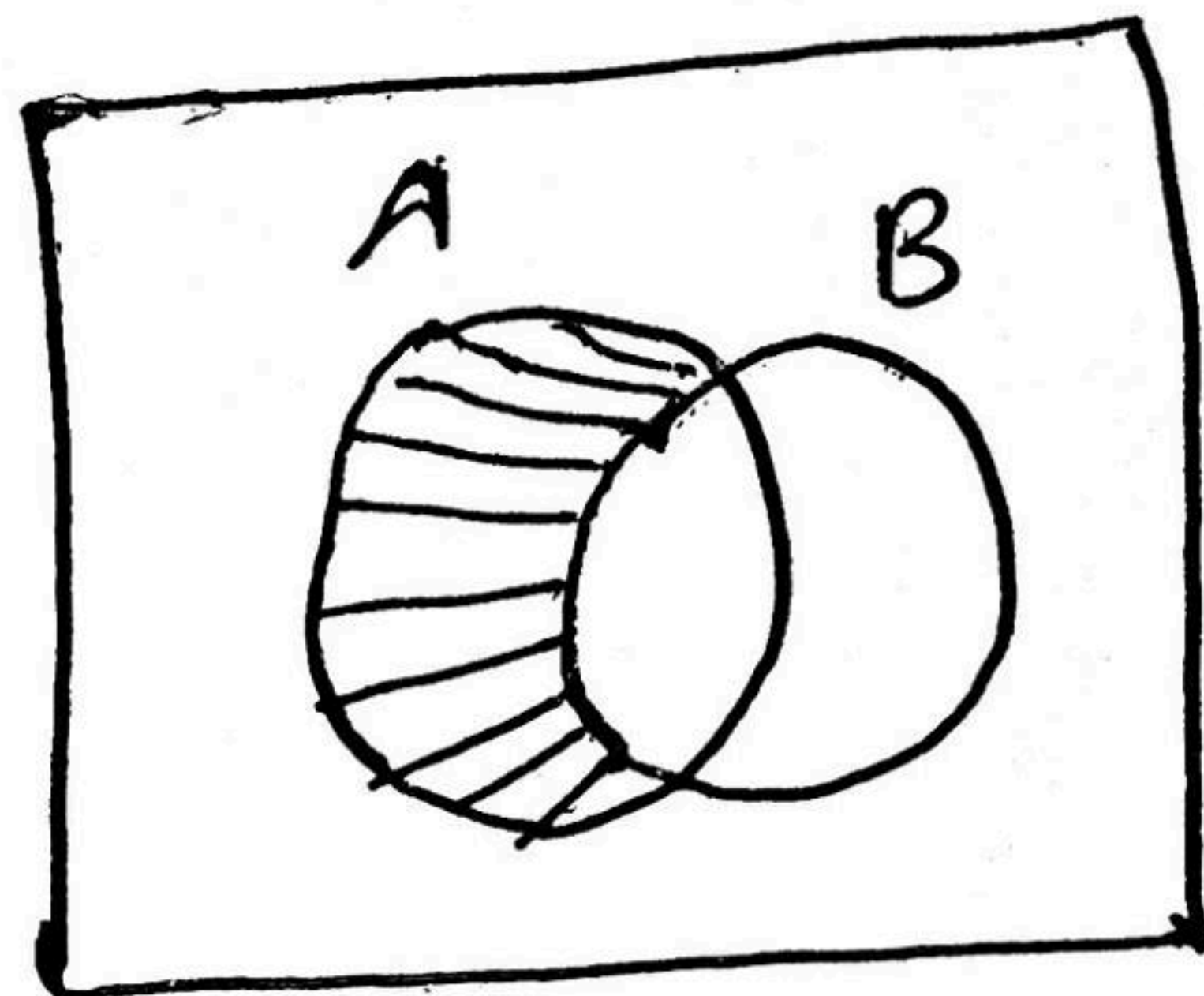
3

$$e) P(A \cap B^c)$$

$$= P(A - B)$$

$$= P(A) - P(A \cap B) = \frac{3}{8} - \frac{1}{4} = \frac{1}{8}$$

$$= P(A \cup B) - P(B) = \frac{5}{8} - \frac{1}{2} = \frac{1}{8}$$



$$f) P(A^c \cap B) = ~~P(A \cap B)~~ P(B - A)$$

$$= P(B) - P(A \cap B) = \frac{1}{2} - \frac{1}{4} = \frac{1}{4}$$

$$= P(A \cup B) - P(A) = \frac{5}{8} - \frac{3}{8} = \frac{1}{4}$$